



Receipt

PATENT
19603/1656 (CRF D-2093C)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Campbell et al.

Serial No : 09/656,409

Filed : September 6, 2000

For : NON-OCULAR CIRCADIAN CLOCK
RESETTING IN HUMANS

Examiner:
Unknown

Art Unit:
3738

#5

REQUEST FOR CORRECTED FILING RECEIPT

Assistant Commissioner for Patents
Office of Initial Patent Examination
Customer Service Center
Washington, D.C. 20231

Dear Sir:

Applicants hereby request a corrected filing receipt for the above-identified application. On the enclosed copy of the official filing receipt, the continuing data is incorrectly worded. It should read "CONTINUING DATA AS CLAIMED BY APPLICANT - THIS APPLICATION IS A DIV OF 09/074,455 05/07/1998 AND CLAIMS BENEFIT OF 60/046,188 05/12/1997 AND 60/072,121 01/22/1998". A copy of page 1 of the Specification as filed indicating the correct wording for the continuing data for the two provisional applications is enclosed herewith.

Since Applicants are not responsible for this error, no fee is enclosed.

Respectfully submitted,

Dated: November 15, 2000

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Certificate of Mailing - 37 CFR 1.8(a)	
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on the date below.	
11/15/2000	<u>Sherri A. Mesquita</u>
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NON-OCULAR CIRCADIAN CLOCK RESETTING IN HUMANS

BACKGROUND OF THE INVENTION

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5 1. Field of the Invention

This application claims the benefit of U.S. Provisional Application
(No. 60/046,188 filed May 12, 1997 and U.S. Provisional Application No. 60/072,121/
(filed January 22, 1998. This invention was made with Government support under Grant
No(s). R01MH45067 and K02MH01099, awarded by the National Institute of Health.
10 The Government has certain rights in the inventions. This invention relates to a method
for resetting the phase of the human circadian clock and for enhancing alertness and
performance in humans by application of non-solar photic stimulation, in the range of 15
to 150,000 lux, to any non-ocular region of the human body.

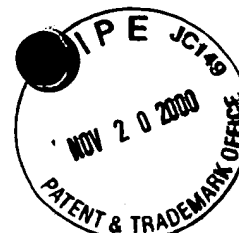
15 2. Related Art

As with all vertebrates, humans exhibit temporal organization in behavior and in
numerous physiological functions. In response to the natural alternation in light and dark,
virtually all species have developed endogenous rhythms with frequencies close to 24
hours. These internally generated, self-sustaining rhythms are known as circadian
20 rhythms (from the Latin *circa* = about, and *dies* = day). The pervasive nature of such
rhythms suggests that circadian temporal organization is vital to the overall well-being of
the organism. Numerous systems and functions are mediated by the circadian system
including hormonal output, body temperature, rest and activity, sleep and wakefulness,
and motor and cognitive performance. In all, literally hundreds of circadian rhythms in
25 mammalian species have been identified.

Left to run at its inherent frequency, the human biological clock that is responsible
for the generation of circadian rhythms exhibits a daily periodicity of slightly longer than
24 hours. Thus, a daily correction to the clock must be made for our internal rhythms to
remain synchronized or 'entrained' to the natural 24 hour day. It is widely accepted that
30 exposure to the natural light/dark cycle provides the strongest signal to entrain the human
circadian system to the geophysical day. Inadequate exposure to light of sufficient
intensity is a contributing factor in disorders associated with biological rhythm
disturbance, such as seasonal affective disorder (SAD), jet lag from transmeridian travel,
shift work and some types of insomnia (advanced and delayed sleep phase syndromes).
35 Timed exposure to artificial bright light to the eyes has been used successfully to treat



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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/656,409	09/06/2000	3738	345	19603/1656	7	13	2

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FILING RECEIPT



OC000000005505514

Date Mailed: 10/26/2000

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

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Patricia J. Murphy, Ossining, NY ;

Continuing Data as Claimed by Applicant

THIS APPLICATION IS A DIV OF 09/074,455 05/07/1998 PAT 6,135,117
AND CLAIMS BENEFIT OF 60/046,188 05/12/1997
AND WHICH CLAIMS BENEFIT OF 60/072,121 01/22/1998

(*) Data inconsistent with PTO records.

Foreign Applications

If Required, Foreign Filing License Granted 10/20/2000

**** SMALL ENTITY ****

Title

Non-ocular circadian clock resetting in humans

Preliminary Class

128

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Data entry by : LEGESSE, ALTAYEWORK

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Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

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- The articles such as "a," "an" and "the" are not included as the first words in the title of an application. They are considered to be unnecessary to the understanding of the title.
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